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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/997,694 | 11/30/2001 | Gerald Cowley | 301928.3000-100 | 4739 |

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EXAMINER:

CHORBAJI, MONZER R

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| ART UNIT | PAPER NUMBER |
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1744

DATE MAILED: 03/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/997,694

Applicant(s)

COWLEY ET AL.

Examiner

MONZER R CHORBAJI

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-2, 5-6, 9, 11, and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 1; applicant uses the word "suitable". The meaning of such a word is not clear. Does the applicant mean that this method is for only fumigating enclosed volumes? Or can it be applied to other situations? It would be less confusing if the applicant deleted such a term.

In claim 1, line 1; applicant uses the word "large". Such a term is subjective. It would be clearer to delete such a word in order to understand the meaning of claim 1.

In claim 1, line 9; applicant uses the term "under environmentally safe conditions". The meaning of this term is not clear. The specification does not explain the meaning of this term. Clarification is needed to understand the meaning of claim 1.

In claim 2, lines 2-3; applicant uses the term "with the same equipment that was used". Clarification is needed to understand what is meant by using the same equipment. The specification does not explain the meaning of this term. Also, the drawings do not include such a limitation. The same clarification is needed for claim 18.

In claim 5, line 2; applicant uses the word "emitter". Does the applicant mean a spraying device, a nozzle, or an atomizer? The applicant should provide examples of

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the emitter in order to understand the meaning of claim 5.

In claim 6, line 1; applicant uses the phrase "the emitter is a stripper".

Clarification is needed to understand how the emitter can function as a stripper. May be the applicant should provide examples for such a limitation.

In claim 9, line 2; applicant uses the phrase "avoiding exceeding the dew point".

It would be clearer to provide examples that clarify such a phrase since the specification does not provide an explanation for such a limitation.

In claim 11, lines 1-2; applicant uses the phrase "requiring fumigation is a portion of a building". The specification does not provide an explanation of how a portion of a building can be fumigated. Explanation is needed to understand the meaning of claim 11.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenblatt et al (U.S.P.N. 4,681,739) in view of Smith et al (U.S.P.N. 4,780,333).

With regard to claim 1 Rosenblatt discloses a method for fumigating a large enclosed volume (col.4, lines 26-27) that contains contents requiring fumigation (col.3, lines 22-23). Rosenblatt teaches the following: climatizing a volume (col.4, lines 13-16), generating chlorine dioxide gas (col.6, lines 1-3), introducing the chlorine dioxide gas into the volume to be fumigated (col.6, lines 12-14), distributing the chlorine dioxide gas in the volume (col.4, lines 23-25), maintaining a residual amount of chlorine dioxide gas into the volume at a level (col.4, lines 20-23) and duration (col.4, lines 23-25) to penetrate the contents, and removing the chlorine dioxide gas from the volume (col.6, lines 21-24). However, Rosenblatt fails to restore habitability. Smith, which is the art of fumigating buildings using chlorine dioxide (col.1, lines 5-8 and col.4, lines 22-24) to treat the contents, i.e., surfaces of contaminated air conditioning units, recognizes the importance of restoring habitability of the building by for example, no people are allowed

into the building while fumigation occurring or the windows of a building should be left opened so that chlorine dioxide is exhausted to the outside air and occupants can enter the building (col.6, lines 17-66). It would have been obvious to one having ordinary skill in the art to modify the method of Rosenblatt to include the step of restoring habitability since unnecessary exposure to chlorine dioxide is harmful to human beings (col.6, lines 28-32).

With respect to claims 2 and 18 Rosenblatt teaches that climatizing the volume (col.4, lines 31-37), introducing (col.4, lines 37-41), and removing chlorine dioxide gas from the volume (col.6, lines 21-23) is done with one apparatus. Thus, Rosenblatt is intrinsically using the same apparatus to perform such steps.

With respect to claims 3-4 Rosenblatt generates chlorine dioxide gas from an aqueous solution of chlorine dioxide gas in a liquid (col.6, lines 1-7).

With respect to claims 5-6 Rosenblatt apparatus includes an emitter (col.6, lines 12-13) and wherein the emitter is a stripper (col.6, lines 21-27).

With respect to claims 7-10, 14, 24 Rosenblatt teaches the following: adjusting both the relative humidity and the temperature (col.3, lines 59-61 and col.4, lines 13-15), intrinsically avoids exceeding the dew point by monitoring and controlling the dew point within the volume (col.4, lines 56-61) such that controlling the relative humidity inherently results in controlling the dew point, and reducing the level of illumination (col.5, lines 19-21).

With respect to claims 15-17, 19-20, 25-30, and 34-35 Rosenblatt method intrinsically involves such steps. See col.4, lines 20-26.

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With respect to claims 21-23 and 31-33 Rosenblatt teaches the following: The volume undergoes a vacuum (col.4, lines 34-35), the chlorine dioxide solution inherently has an equilibrium partial pressure (col.6, lines 1-7), the sterilant gas penetrates the contents in the volume (abstract, lines 1-10), and the volume requiring fumigation is contaminated with gram positive spores (col.6, lines 48-51).

With regard to claims 11-13, Smith discloses the following: fumigating buildings and vehicles (col.6, lines 32-36), and a heating ventilation and air conditioning system (col.6, lines 44-47).

Conclusion

7. The prior art made of record but not relied upon is considered pertinent to applicant's disclosure. Aoyagi (U.S.P.N. 6,363,734) fumigates building by using chlorine dioxide gas. Aoyagi recognize restoring habitability by maintaining a certain concentration level of chlorine dioxide gas within the building.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R CHORBAJI whose telephone number is (703) 305-3605. The examiner can normally be reached on M-F 8:30-5:00.

9. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT J WARDEN can be reached on (703) 308-2920. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

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10. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Monzer R. Chorbaji *MRC*
Patent Examiner
AU 1744
March 23, 2003

Robert J. Warden, Sr.
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